

Grade 7 Academic Standards

Unit 4 Lesson

Science

Standard 1 The Nature and Science of Technology

Technology and Science

- 7.1.7 Explain how engineers, architects, and others who engage in design and technology use scientific knowledge to solve practical problems.
- 7.1.8 Explain that technologies often have drawbacks as well as benefits. Consider a technology, such as the use of pesticides, which helps some organisms but may hurt others, either deliberately or inadvertently.

Standard 2 Scientific Thinking

Communication Skills

- 7.2.7 Incorporate circle charts, bar and line graphs, diagrams, scatter plots, and symbols into writing, such as lab or research reports, to serve as evidence for claims and/or conclusions.

Standard 3 The Physical Setting

Matter and Energy

- 7.3.15 Describe how electrical energy can be produced from a variety of energy sources and can be transformed into almost any other form of energy, such as light or heat.
- 7.3.16 Recognize and explain that different ways of obtaining, transforming, and distributing energy have different environmental consequences.

Standard 4 The Living Environment

Human Identity

- 7.4.14 Explain that the environment may contain dangerous levels of substances that are harmful to human beings. Understand, therefore, that the good health of individuals requires monitoring the soil, air, and water as well as taking steps to keep them safe.

Social Studies

Standard 5 Individuals, Society, and Culture

7.5.4 Examine the impact of cultural change brought about by technological inventions and innovations in the past and present.

Unit 4 - Activities 1, 4, 5, and 6 satisfy the following Indiana academic standards:

Science

- 7.1.8 Explain that technologies often have drawbacks as well as benefits. Consider a technology, such as the use of pesticides, which helps some organisms but may hurt others, either deliberately or inadvertently.
- 7.1.9 Explain how societies influence what types of technology are developed and used in such fields as agriculture, manufacturing, sanitation, medicine, warfare, transportation, information processing, and communication.
- 7.1.10 Identify ways that technology has strongly influenced the course of history and continues to do so.
- 7.4.14 Explain that the environment may contain dangerous levels of substances that are harmful to human beings. Understand, therefore, that the good health of individuals requires monitoring the soil, air, and water as well as taking steps to keep them safe.

Social Studies

- 7.5.4 Examine the impact of cultural change brought about by technological inventions and innovations in the past and present.
- 7.5.8 Use a variety of information resources to identify examples of present conflicts between cultural groups or nations, and analyze the historical and geographical background of such conflicts.